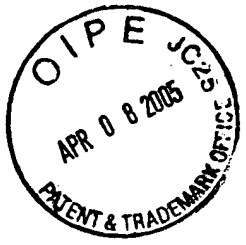

PATENT

45088

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	:	
	:	
JOHNSON et al.	:	Group Art Unit: 3632
	:	
Serial No.: 10/651,205	:	Examiner: R. Ramirez
	:	
Filed: August 29, 2003	:	
	:	
For: BRACE ASSEMBLY FOR CEILING FANS AND FIXTRUES	:	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal pursuant to 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1 – 16, 18 - 21 and 29 – 30 as set forth in the Office Action of October 8, 2004.

I. Real Party in Interest

The real party in interest in this application and the appeal is Hubbell Incorporated by assignment recorded September 24, 2003 on Reel 014611, Frame 0328.

II. Related Appeals and Interferences

There are no other related patents or applications related to this invention on appeal or that are involved in an interference proceeding.

III. Status of Claims

Claims 1 – 16, 18 – 21, 29 and 30 stand finally rejected and are the subject of this appeal. Claims 1-21 are reproduced in Appendix I.

Claims 17 and 22 stand objected to, the examiner indicating that these claims would be allowable if rewritten in independent form including the limitations of the claims from which they depend.

Claims 23 – 28 stand allowed by the examiner.

IV. Status of Amendments

No amendments were filed subsequent to the October 8, 2004 final rejection.

V. Summary of the Claimed Subject Matter

The present invention as claimed is directed to a brace assembly to support an outlet box as recited in independent claim 1, and an adjustable brace assembly to support an outlet box as recited in independent claims 8 and 29.

Independent claim 1 is directed to a brace assembly 11 to support an outlet box 13 (paragraph 27, lines 1 – 2, FIGS. 1 - 2). A brace member 21 is adapted to be installed between first and second support members 15 and 17 (paragraph 27, lines 2 – 3, FIGS. 1 - 2). The brace member 21 has a base 23 (paragraph 27, lines 3 – 4, FIGS. 1 – 2). A first mounting surface 61 extends from the base of the brace member 21 at a first end of the brace member (paragraph 27, lines 4 – 5, FIGS. 1 - 2). The first mounting surface 61 forms a first angle α greater than 90 degrees with the base and is adapted to create a compression fit by contacting the first support member 17 when installed (paragraph 27, lines 5 – 6, FIGS. 1, 2 and 6).

Independent claim 8 is directed to an adjustable brace assembly 11 to support an outlet box 13 (paragraph 27, lines 1 – 2, paragraph 28, lines 4 – 6, FIGS. 1 - 2). A first brace member 41 has a first base 43 (paragraph 29, lines 1 -2, FIGS. 1 and 3 –5). A second brace member 31 has a second base 33 (paragraph 30, lines 1 – 2, FIGS. 1 and 7 – 9). The second brace member 31 is adjustably received by the first brace member 41 (paragraph 28, lines 4 – 6, FIGS. 1 – 2 and 10 - 13). A first mounting surface 61 extends from the first base 43 of the first brace member 41 (paragraph 32, lines 1 – 2, FIGS. 3 – 4). The first mounting surface 61 forms a first angle greater than 90 degrees with the first base 43 and is adapted to create a compression fit by contacting a first support member 17 when installed (paragraph 32, lines 2 - 4, paragraph 41, lines 5 – 12, FIGS. 1 – 2, 6 and 10 - 11). A second mounting surface 51 extends from the second

base 53 of the second brace member 31 (paragraph 33, lines 1 – 2, FIGS. 7 – 8). The second mounting surface 51 forms a second angle greater than 90 degrees with the second base 53 and is adapted to create a compression fit by contacting a second support member 15 when installed (paragraph 33, lines 2 – 4, paragraph 41, lines 5 – 12, FIGS. 1 – 2 and 10 - 11).

Independent claim 29 is directed to an adjustable brace assembly 11 to support an outlet box 13 (paragraph 27, lines 1 – 2, and paragraph 28, lines 4 – 6, FIGS. 1 – 2). First and second support members 15 and 17 are substantially parallel (paragraph 28, lines 1 – 2, FIGS. 1, 2 and 10 – 13). A first brace member 41 has a first base 43 (paragraph 29, lines 1 -2, FIGS. 1 and 3 – 5). A second brace member 51 has a second base 53 (paragraph 30, lines 1 – 2, FIGS. 1 and 7 – 9). The second brace member 51 is adjustably received by the first brace member 41 (paragraph 28, lines 4 – 6, FIGS. 1 – 2 and 10 – 13). A first mounting surface 61 extends from the first base 43 of the first brace member 41 (paragraph 32, lines 1 – 2, FIGS. 3 – 4). The first mounting surface 61 forms a first angle greater than 90 degrees with the first base 43 prior to installation, and substantially engages the first support member 17 when installed to create a compression fit therebetween (paragraph 32, lines 2 - 4, paragraph 41, lines 5 – 12, FIGS. 1 – 2, 6 and 10 - 11).

The embodiments of the present invention provide a brace assembly that is temporarily secured between supports without tools (paragraph 8, lines 1 – 2, FIGS. 2 and 12).

VI. Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection for review on appeal are:

(1) the rejection of independent claim 1 and dependent claims 3, 5 and 7 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,967,990 to Rinderer;

(2) the rejection of dependent claim 2 under 35 U.S.C. § 103(a) as obvious under U.S. Patent No. 4,967,990 to Rinderer;

(3) the rejection of independent claims 8 and 29 and dependent claims 4, 9 – 16, 20, 21 and 30 under 35 U.S.C. § 103(a) as obvious under U.S. Patent No. 4,967,990 to Rinderer in view of U.S. Patent No. 4,050,603 to Harris et al.;

(4) the rejection of dependent claim 6 under 35 U.S.C. § 103(a) as obvious under U.S. Patent No. 4,967,990 to Rinderer; in view of U.S. Patent No. 5,040,316 to Fast; and

(5) the rejection of dependent claims 18 - 21 under 35 U.S.C. § 103(a) as obvious under U.S. Patent No. 4,967,990 to Rinderer in view of U.S. Patent No. 4,050,603 to Harris et al. and in further view of U.S. Patent No. 5,040,316 to Fast.

VII. Arguments

The claimed invention is directed to a brace assembly to support an electrical box. The embodiments of the present invention provide a brace assembly that is temporarily secured between supports without tools. For the reasons discussed herein, the art of record does not disclose or suggest the features of the present invention. Therefore, claims 1 – 16, 18 – 21 and 29 - 30 are patentable over the art of record.

A. Claims 1, 3, 5 and 7 Are Not Anticipated by U.S. Patent No. 4,967,990 to Rinderer

Independent claim 1 is rejected as being anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 4,967,990 to Rinderer (the Rinderer patent). The Rinderer patent is cited as disclosing a first mounting surface forming a first angle greater than 90 degrees with the base and being adapted to create a compression fit by contacting the first support member when installed. The question on appeal is whether the Rinderer patent discloses or suggests creating a compression fit as stated by the examiner in the Action.

1. Independent Claim 1 Is Not Anticipated

Independent claim 1 is directed to a brace assembly to support an outlet box. A brace member is adapted to be installed between first and second support members. The brace member has a base. A first mounting surface extends from the base of the brace member at a first end of the brace member. The first mounting surface forms a first angle α greater than 90 degrees with

the base and is adapted to create a compression fit by contacting the first support member when installed. The combination of these features is not disclosed or suggested by the Rinderer patent.

The Rinderer patent discloses a brace assembly for supporting an outlet box. The assembly includes a brace 21 having a base and mounting surfaces 51 that extend from the base at an angle greater than 90 degrees. Flanges 53 extend from the mounting surfaces and have holes for receiving fasteners to secure the brace 21 to faces of the supports S, as shown in FIGS. 1 and 2.

The Rinderer patent does not show or disclose a mounting surface having an angle greater than 90 degrees with the base to create a compression fit between the mounting surface and a support member during installation, as claimed in independent claim 1. As discussed in paragraph [0041] of Applicants' specification, the angle between the mounting surfaces and their respective support member creates a compression fit during installation between the brace member and the support members. This compression fit secures the brace assembly between the support members and allows an installer to release the brace assembly without the brace assembly falling, thereby freeing the hands of the installer and providing a more easily and efficiently installable brace assembly.

As is clearly shown in FIG. 2 of the Rinderer patent, the mounting surfaces of the elongate extensions 51 do not contact the supports S when the brace assembly is installed. Therefore, a compression fit with the supports is not be created during installation of the Rinderer brace assembly.

Furthermore, there is no disclosure or suggestion in the Rinderer patent to create a compression fit between the brace assembly and the supports S during installation, which is described in col. 5, lines 29 – 36. Fastening flaps 53 are formed in the Rinderer brace

assembly, which are then "fastened by suitable fasteners 57 to the wall studs to secure the bar". Thus, there is no disclosure of a mounting surface of the Rinderer brace assembly that is adapted to create a compression fit by contacting the first support member when installed".

As cited in MPEP § 2131, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single, prior art reference". Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Therefore, since there is no disclosure or suggestion of a compression fit being formed by a mounting surface contacting a support member when installed, independent claim 1 is not anticipated by the Rinderer '990 patent.

Furthermore, independent claims 1 recites functional language directed to creating a compression fit upon installation of the brace assembly. The final Office Action of October 8, 2004 (the "Action") states that "Applicant relies in functional to recite a compression fit between the mounting surfaces and the support members. However, this compression fit depends from the distance between the support members" (page 4 of the Action). Furthermore, in the December 16, 2005 Advisory Action the examiner appears to again disregard this functional language in the claims because "the compression fit would depend from the distance between the studs" (December 16, 2005 Advisory Action, page 2). Thus, the examiner does not appear to have considered the functional language regarding creating a compression fit.

As stated in MPEP § 2173.05(g), "[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used". MPEP § 2173.05(g) further states that "[a] functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element,

ingredient or step". Claim 1 recites the first mounting surface being adapted to create a compression fit by contacting the first support member to which the brace assembly is installed. "In determining anticipation, functional language, preambles, and language in "whereby," "thereby," and "adapted to" clauses cannot be disregarded." Pac Tec, Inc. v. Amerace Corp., 903 F.2d 796, 14 USPQ2d 1871 (Fed. Cir. 1990), cert. denied, 502 U.S. 808 (1991). As noted above, the Rinderer patent has no disclosure or suggestion of forming a compression fit when installing the Rinderer brace assembly.

Furthermore, the Rinderer '990 patent does not disclose the problem identified in Applicants' specification regarding the awkwardness of holding a brace assembly with one hand while attempting to insert fasteners with the other hand to secure the brace assembly to the support during installation. Nor does the Rinderer '990 patent disclose the solution of creating a compression fit between the brace assembly and the support members to free the hands of the installer by having mounting surfaces at an angle greater than 90 degrees adapted to create the compression fit, thereby overcoming the above-identified problem. Therefore, the Rinderer '990 patent does not disclose nor render obvious the features of Applicants' invention recited in independent claim 1. Since the Rinderer '990 patent does not disclose, teach, or suggest all of the limitations of independent claim 1, Applicants submit that claim 1 is allowable.

2. Claims 3, 5 and 7 Are Not Anticipated

The Rinderer '990 patent does not disclosure or suggest a brace assembly having a first mounting surface having a first fastener hole to receive a first fastener to secure the brace member to the first support member as in claim 3, a first flange extending perpendicularly outwardly from the first mounting surface that is adapted to be received on a lower surface of the

first support member, and a second mounting surface extending from a second end of the brace member that forms a second angle greater than 90 degrees with the base and is adapted to create a compression fit by contacting the second support member when installed, in combination with the structure of the brace assembly recited in claim 1.

Each of claims 2, 5 and 7 depend from independent claim 1, which recites a compression fit being formed between a first mounting surface and a first support. Claim 7 depends from claim 1 to recite a second mounting surface to create a compression fit with the second support between which the brace assembly is installed. As discussed above, the Rinderer '990 patent does not disclose or suggest a compression fit being formed between the first mounting surface and a first support. Therefore, dependent claims 3, 5 and 7 are not anticipated or rendered obvious by the Rinderer '990 patent, particularly within the overall claimed combination.

B. Claims 2, 4, 8 – 16, 20, 21, 29 and 30 Are Not Obvious Over U.S. Patent No. 4,967,990 to Rinderer in view of Cited Secondary References

Independent claims 8 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,967,990 to Rinderer (the Rinderer patent) in view of cited secondary references. For claim 2, there is no cited secondary reference. For claims 4, 8 – 16, 20, 21 29 and 30, the cited secondary reference is U.S. Patent No. 4,050,603 to Harris et al. (the Harris '603 patent"). For claim 6, the cited secondary reference is U.S. Patent No. 5,040,315 to Fast et al. (the Fast '315 patent). For claims 18 – 21, the cited secondary references are both the Harris '603 patent and the Fast '315 patent. None of the cited secondary references cure the deficiency noted above with regard to claim 1, i.e., the absence of disclosure, suggestion or motivation in

the Rinderer '990 patent to create a compression fit between a mounting surface of the brace assembly and a support.

The Harris '603 patent is merely cited for disclosing prongs in the attachment elements 3b of the bar hanger 3, as shown in FIG. 1.

The Fast '316 patent is merely cited for disclosing score lines in the mounting surfaces to adjust the length of the display tag 10, as shown in FIGS. 2 and 3. Tear away portions 34 and 36 are removed from the display tag 10 to suit a variety of different length support hooks 32, as shown in FIG. 3. The Fast '316 patent is non-analogous art as it pertains to product information display tags for use with support hooks (col. 1, lines 15 – 17 of the Fast '316 patent). The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness." In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

The deficiencies in the Rinderer '990 patent noted above with respect to independent claim 1, which features are also recited in independent claims 8 and 29, are not cured by the Rinderer '990 patent alone or in combination with the Harris '603 or Fast '316 patents. The Rinderer '990, Harris '603 and Fast '316 patents do not disclose or render obvious a brace assembly having a mounting surface at an angle greater than 90 degrees adapted to create a compression fit with a support member, as recited in independent claims 8 and 29.

Thus, independent claims 8 and 29 are allowable for the above discussed reasons.

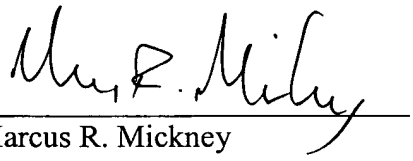
Claims 2 – 7 and 9 – 22 and 30, being dependent upon independent claims 1, 8 and 29, respectively, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patents. For example, the fastener holes in the mounting surfaces of claims 3, 9 and 10; the prongs extending outwardly from the

mounting surfaces of claims 4, 11 and 12; flanges extending outwardly and adapted to be received on a lower surface of the support member of claims 5, 13 and 14; the mounting surfaces extending from the base at an angle of approximately 94 degrees of clams 2, 15 and 16; and a second mounting surface forming a second angle greater than 90 degrees to create a compression fit with a second support when installed of claims 7 and 30, are not anticipated or rendered obvious by the cited patents, particularly within the overall claimed combination.

C. Conclusion

For the reasons presented herein, Applicants submit that claims 1 – 16, 18 – 21 and 29 - 30 are not anticipated under 35 U.S.C. § 102(b) or rendered obvious under 35 U.S.C. § 103(a) by the cited references of record. Accordingly, reversal of the final rejection is requested and allowance of claims 1 – 16, 18 – 21 and 29 – 30 is respectfully requested.

Respectfully submitted,



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Dated: APRIL 8, 2005

VIII. CLAIMS APPENDIX

1. (previously amended) A brace assembly to support an outlet box, comprising:

a brace member adapted to be installed between first and second support members, said brace member having a base; and

a first mounting surface extending from said base at a first end of said brace member, said first mounting surface forming a first angle greater than 90 degrees with said base and being adapted to create a compression fit by contacting the first support member when installed.

2. (original) A brace assembly according to claim 1, wherein

said first angle is approximately 94 degrees.

3. (original) A brace assembly according to claim 1, wherein

said first mounting surface has a first fastener hole to receive a first fastener to secure said brace member to the first support member.

4. (original) A brace assembly according to claim 1, wherein

a first prong extends outwardly from said first mounting surface to secure said brace member to the first support member.

5. (original) A brace assembly according to claim 1, wherein

a first flange extends perpendicularly outwardly from said first mounting surface and is adapted to be received on a lower surface of the first support member.

6. (original) A brace assembly according to claim 1, wherein

said first mounting surface has a first score line to remove a first portion of said first mounting surface to accommodate various wall thicknesses.

7. (previously amended) A brace assembly according to claim 1, wherein

a second mounting surface extends from a second end of said brace member, said second mounting surface forming a second angle greater than 90 degrees with said base and being adapted to create a compression fit by contacting the second support member when installed.

8. (previously amended) An adjustable brace assembly to support an outlet box, comprising:

a first brace member having a first base;

a second brace member having a second base, said second brace member being adjustably received by said first brace member;

a first mounting surface extending from said first base of said first brace member, said first mounting surface forming a first angle greater than 90 degrees with said first base and being adapted to create a compression fit by contacting a first support member when installed; and

a second mounting surface extending from said second base of said second brace member, said second mounting surface forming a second angle greater than 90 degrees with said second base and being adapted to create a compression fit by contacting a second support member when installed.

9. (previously amended) A brace assembly according to claim 8, wherein

a first fastener hole in said first mounting surface receives a first fastener to secure said first brace member to the first support member.

10. (previously amended) A brace assembly according to claim 9, wherein

a second fastener hole in said second mounting surface receives a second fastener to secure said second brace member to the second support member.

11. (original) A brace assembly according to claim 8, wherein
a first prong extends outwardly from said first mounting surface to secure said first brace member to the first support member.

12. (original) A brace assembly according to claim 11, wherein
a second prong extends outwardly from said second mounting surface to secure said second brace member to the second support member.

13. (original) A brace assembly according to claim 8, wherein
a first flange extends perpendicularly outwardly from said first mounting surface and is adapted to be received on a lower surface of the first support member.

14. (original) A brace assembly according to claim 13, wherein
a second flange extends perpendicularly outwardly from said second mounting surface and is adapted to be received on a lower surface of the second support member.

15. (original) A brace assembly according to claim 8, wherein
said first angle is approximately 94 degrees.

16. (original) A brace assembly according to claim 15, wherein
said second angle is approximately 94 degrees.

17. (original) A brace assembly according to claim 8, wherein
a tab extends outwardly from an outer surface of said second base of said second brace member, said tab contacting an inner surface of said first base of said first brace member to create an interference fit between said first and second brace members.

18. (original) A brace assembly according to claim 8, wherein

said first mounting surface has a first score line to remove a first portion of said first mounting surface to accommodate various wall thicknesses.

19. (original) A brace assembly according to claim 18, wherein

said second mounting surface has a second score line to remove a second portion of said second mounting surface to accommodate various wall thicknesses.

20. (original) A brace assembly according to claim 12, wherein

a first flange extends perpendicularly outwardly from said first mounting surface and is adapted to be received on a lower surface of the first support member.

21. (original) A brace assembly according to claim 20, wherein

a second flange extends perpendicularly outwardly from said second mounting surface and is adapted to be received on a lower surface of the second support member.

22. (original) A brace assembly according to claim 21, wherein

a tab extends outwardly from an outer surface of said second base of said second brace member, said tab contacting an inner surface of said first base of said first brace member to create an interference fit between said first and second brace members.

23. (original) An adjustable brace assembly to support an outlet box, comprising:

a first brace member having a first base;

a second brace member having a second base, said second brace member being adjustably received by said first brace member;

a first mounting surface extending from said first base of said first brace member, said first mounting surface forming a first angle greater than 90 degrees with said first base;

a second mounting surface extending from said second base of said second brace member, said second mounting surface forming a second angle greater than 90 degrees with said second base;

a first fastener hole in said first mounting surface to receive a first fastener to secure said first brace member to a first support member;

a second fastener hole in said second mounting surface to receive a second fastener to secure said second brace member to a second support member;

a first flange extending perpendicularly outwardly from said first mounting surface and adapted to be received on a lower surface of the first support member;

a second flange extending perpendicularly outwardly from said second mounting surface and adapted to be received on a lower surface of the second support member; and

a tab extending outwardly from an outer surface of said second base of said second brace member, said tab contacting an inner surface of said first base of said first brace member to create an interference fit between said first and second brace members.

24. (original) A brace assembly according to claim 23, wherein said first angle is approximately 94 degrees.

25. (original) A brace assembly according to claim 24, wherein said second angle is approximately 94 degrees.

26. (original) A method of installing a brace assembly between first and second supports, comprising the steps of:

positioning the brace assembly between the first and second supports;

extending the brace assembly between the first and second supports;

raising the brace assembly between the first and second supports to flex inwardly first and second mounting surfaces of the brace assembly to create a compression fit between the brace assembly and the first and second supports;

raising the brace assembly until each of said first and second mounting flanges on the first and second mounting surfaces contact an underside of each of the first and second supports;

releasing the brace assembly; and

inserting fasteners through the first and second mounting surfaces to secure the brace assembly to the first and second supports.

27. (original) A method of installing a brace assembly according to claim 26, further comprising

inserting prongs on the first and second mounting surfaces into the first and second supports to secure the brace assembly to the first and second supports.

28. (original) A method of installing a brace assembly according to claim 26, further comprising

breaking each of the first and second mounting surfaces at a score line to accommodate various wall thicknesses.

29. (previously added) An adjustable brace assembly to support an outlet box, comprising:

first and second substantially parallel support members;

a first brace member having a first base;

a second brace member having a second base, said second brace member being adjustably received by said first brace member; and

a first mounting surface extending from said first base of said first brace member, said first mounting surface forming a first angle greater than 90 degrees with said first base prior to installation, and substantially engaging said first support member when installed to create a compression fit therebetween.

30. (previously added) An adjustable brace assembly to support an outlet box according to claim 29, wherein

a second mounting surface extends from said second base of said second brace member, said second mounting surface forming a second angle greater than 90 degrees with said second base prior to installation, and substantially engaging said second support when installed to create a compression fit therebetween.

IX. EVIDENCE APPENDIX

No evidence under 37 C.F.R. § 1.130, 1.131 or 1.132 is relied upon in this Appeal.

X. RELATED PROCEEDINGS APPENDIX

None